APPENDIX A

## BEA TUXEDO Glossary

A program or set of programs that let users structure and manipulate the data in the tables of a database. A DBMS ensures privacy, recovery, and integrity of data in a multi-user environment.

**data-dependent routing**
1) Routing that directs a request to be processed by a particular group based on the value in a data field of the message. 2) A mechanism in the BEA TUXEDO system in which a service request is mapped to a specific server group based on a value contained in a designated field in the data buffer.

**data independence**
The ability to request data by a high-level data-management method without concern as to how the data is stored or retrieved.

**data transfer protocol**
A set of rules for transforming data of a particular buffer type from one representation into another.

**DB2**
See DataBase2 (DB2).

**DBBL**
See Distinguished Bulletin Board Liaison (DBBL).

**DBMS**
See database management system (DBMS).

**DDE**
See Dynamic Data Exchange (DDE).

**DDE conversation**
The sending and receiving of DDE messages between a client application and a server application.

**deadlock**
1) Unresolved contention for the use of a resource. 2) An error condition in which processing cannot continue because each of the two elements of the process is waiting for an action or a response from the other.

**decoding**
The process of converting bit patterns (received from a network) into data that can be translated and converted, as required. BEA Connect TPS performs ASN.1 decoding.

**default**
The value assumed by a program if a value is not supplied by the user.

**deferred synchronous communication**
A form of asynchronous communication in which one piece of software can send a message to another piece of software, and then continue to work and retrieve the reply to the message at some later time.

**deployment**
The process of placing an application in a distributed environment and making the application available for use. Deployment can include such tasks as installation, configuration, and administration of various parts of the application.

**design document**
The document written by the system integrator that explains the overall design of the application or the framework to be built.

**design pattern**
A document that encapsulates, in a structured format, solutions to design problems. Design patterns are guides to good design practices.

**dialog**
A process of sending and receiving information.

**Direct Access Storage Device (DASD)**
A disk, disk drive, or group of disks or drives on an IBM machine.

**Distinguished Bulletin Board Liaison (DBBL)**
A BEA TUXEDO administrative process that runs on the MASTER node of the application and communicates with BBLs t coordinate updates to the bulletin board.

**distributed application**
An application that is separated into two or more parts (such as a client and a server) on different computers that communicate through a network.

**distributed application framework**
A middleware suite for building and managing client/server applications. The framework also includes products providing connectivity across multiple operating environments, development services, and management.

**distributed computing**
An application design and implementation strategy that separates an application into units that are executed on different computers and communicate through a network. For example, an application can be separated into three distributed unit: user interface unit, a processing unit, and a storage unit.

**distributed transaction**
A transaction involving multiple transaction managers. In a distributed transaction environment, a client application may send requests to several servers resulting in resource updates at multiple resource managers. To complete the transacti the transaction manager for each participant (client, servers, and resource managers) must be polled to coordinate the commit process for each participant within its domain.

**distributed transaction processing (DTP)**

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Glossary of Java IDL Terms

Trail: IDL
Lesson: Summary

# Glossary of Java IDL Terms

**attribute (IDL)**
That part of an IDL interface that is similar to a public class field or C++ data member. The idltojava compiler maps an OMG IDL attribute to accessor and modifier methods in the Java programming language. For example, an interface ball might include the attribute color. The idltojava compiler would generate a Java programming language method to get the color, and unless the attribute is readonly, a method to set the color. CORBA attributes correspond closely to JavaBeans properties.

**client**
Any code which invokes an operation on a distributed object. A client might itself be a CORBA object, or it might be a non-object-oriented program, but while invoking a method on a CORBA object, it is said to be acting as client.

**client stub**
A Java programming language class generated by idltojava and used transparently by the client ORB during object invocation. The remote object reference held by the client points to the client stub. This stub is specific to the IDL interface from which it was generated, and it contains the information needed for the client to invoke a method on the CORBA object that was defined in the IDL interface.

**client tier**
The portion of a distributed application that requests services from the server tier. Typically, the client tier is characterized by a small local footprint, a graphical user interface, and simplified development and maintenance efforts.

**Common Object Request Broker Architecture (CORBA)**
An OMG-specified architecture that is the basis for the CORBA object model. The CORBA specification includes an interface definition language (IDL), which is a language-independent way of creating contracts between objects for implementation as distributed applications.
See also: client tier, service tier, data store tier

**CORBA object**
An entity which (1) is defined by an OMG IDL interface, and (2) for which an object reference is available. Object is also the implicit common base type for object references of IDL interfaces.

**data store tier**
The portion of a distributed application that manages access to persistent data and its storage mechanisms, such as relational databases.

**distributed application**
A program designed to run on more than one computer, typically with functionality separated into tiers such as client, service, and data store.

**distributed environment**

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LiebertWeb: Network Terminology Glossary

# D ▲

**Data compression** A procedure that uses mathematical techniques to encode data so that it uses less space. In most cases, data must be decompressed into its original form to be usable.

**Data encryption** A security procedure that encodes data so that it cannot easily be understood. To be usable, data must be decrypted into its original form by reversing the procedure that was used to encrypt it.

**Database server** A network computer that specializes in retrieving and storing data, providing that service to clients.

**De facto standard** A standard that exists through popular practice.

**De jure standard** A standard that exists through codes, laws, decrees, or other forms of legislation.

**DECnet** A network developed by Digital Equipment Corporation that connects DEC computers, PCs, and Macintoshes.

**Digital** A representation that uses discrete mathematical values to represent an object or amount. For example, a digital thermometer uses numbers to represent the relative amount of heat. (Compare with analog.)

**Diskless workstation** A networked computer that does not have local storage.

**Distributed application** An application that runs on two or more networked computers.

**Distributed processing** A system in which processing of applications stored on the network is done by client computers. "Distributed processing" is also sometimes used to refer to "distributed applications."

**DNA** Digital Network Architecture. A network architecture developed by Digital Equipment Corporation.

**Dumb terminal** An entry and display device that has no processing capability. Used in networks based on central processing.

# E ▲

**EBCDIC** Extended Binary Coded Decimal Interchange Code. A common code for representing alphanumeric characters in computers.

**Electronic mail** Software that enables users to send correspondence through a computer network.

**Ethernet** A popular local area network that uses a contention media-access method over a bus topology of coaxial cable. Also used to refer to the standard specified by IEEE 802.3.

**EWN** Enterprise-wide network. A network that serves an entire organization. Implies interoperability of disparate computing platforms, such as MS-DOS, UNIX, OS/2, and Macintosh.

# F ▲

**FDDI** Fiber Distributed Data Interface. Lower layers standard for networks based on optical fiber.

**FEP** Front-end processor. A device that manages communication between a host and other devices.

**File server** A node that provides other nodes with the access to shared storage.

# G ▲

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